

**REMARKS**

1) The Examiner stated that the submission and acceptance of a new sequence listing on 14<sup>th</sup> May 2009 has overcome the objection to the Specification.

2) The Examiner stated that claims 19-23 and 25-31 are rejected. Claims 32-36 are withdrawn. The Examiner stated that the request for reconsideration has been considered but does not place the application in condition for allowance.

3) The Examiner stated that the Declaration under 37 CFR § 1.132 filed May 14, 2009 was insufficient to overcome the rejection of claims 19-23 and 25-31 based upon 35 USC § 103(a) in view of Braven et al. (US 2005/0221315 A1) as set forth in the last Office action because: The Declaration indicated that the inventive disclosure of US 2005/0221315 A1 was by H. Braven and R. Keay. However the instant application is a different inventive entity from US 2005/0221315 A1, having three co-inventors: H. Braven, R. Keay, and S. Flower.

The Examiner stated that Applicant appeared to be attempting to disqualify the reference under 35 USC § 103(c) as prior art rejection under 35 USC § 103(a) as subject matter being commonly owned or subject to a Joint Research Agreement (Office action at page 6, fourth paragraph).

The Examiner then stated that the Declaration failed to show that the relevant portions of the US 2005/0221315 A1 reference (two inventors) originated with or were obtained from Applicant (three inventors). That is, the Examiner continued, the Declaration failed to indicate that while S. Flower is a co-inventor of some claims in the instant invention, his co-inventorship does not co-extend to the claimed subject matter disclosed in US 2005/0221315 A1 reference and subject to the rejections under 35 USC § 103(a) set forth *infra*.

In an earlier Office action, mailed 30<sup>th</sup> September 2008, the Examiner had stated that the rejection under 35 U.S.C. § 103(a) as being unpatentable over Hugli (USPN 6,235,494 B1) in view of Braven et al. (US 2005/0221315 A1) might be overcome “by a showing under 37 CFR § 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another” ” (Office action, mailed 30<sup>th</sup> September 2008, at page 4, third paragraph).

Remaining Rejections under 35 USC 103(a)

4) The Examiner stated that claims 19, 25, 26, 27, and 31 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Hugli (USPN 6,235,494 B1) in view of Braven et al. (US 2005/0221315 A1) for reasons of record set forth in the Prior Actions.

5) The Examiner stated that claims 19, 20, 22, 23, 25, 26, and 27 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Ludin et al. (USPN 6,495,336 B1) in view of Braven et al. for reasons of record set forth in the Prior Actions.

6) The Examiner stated that claims 19, 20, 22, 25, 26, 28, 29, and 30 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Nagy (2000) in view of Braven et al. for reasons of record set forth in the Prior Actions.

7) The Examiner stated that claims 19-22, 25, 26, 28, 29, and 30 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Nagy (2000) in view of Braven et al. and further in view of Forrest et al. (USPN 4,978,610) for reasons of record set forth in the Prior Actions.

8) The Examiner stated that claims 19, 20, 22, 23, 25, 26, 28, 29, and 30 remain rejected

under 35 U.S.C. § 103(a) as being unpatentable over Nagy (2000) in view of Braven et al. and further in view of Nicholson (USPN 4,456,337) for reasons of record set forth in the Prior Actions.

9) The Examiner stated that to effectively overcome the rejections of claims 19-23 and 25-31 based upon 35 U.S.C. § 103(a) in view of Braven et al. as set forth in the last Office Actions, Applicants must submit a Declaration under 37 C.F.R. § 1.132 which specifically indicates which instant claims S. Flower contributed to and which claims S. Flower did not contribute to and effectively explain why S. Flower is not the inventor of the subject matter found in the USPGPUB (US 2005/0221315 A1) which is co-extensive with the instant claims.

10) Applicants respectfully submit that independent claim 19 is drawn to methods of detecting protease activity using a protease substrate labeled with an electrochemically active marker. Applicants submit that the disclosure of Braven et al. does not disclose using protease substrates labeled with an electrochemically active marker. Applicants therefore submit that the disclosure of Braven et al. does not disclose or claim the instant invention.

11) Applicants herewith submit a Declaration under 37 C.F.R. § 1.132 (dated July 24, 2009) jointly made by John Clarkson, CEO of Atlas Genetics, Ltd., of Trowbridge, U.K., Atlas Genetics Ltd. being the assignee of the instant Application for patent and also assignee of the patent Application of Braven et al. (US 2005/0221315 A1), and by Stephen Flower, one of the inventors.

Applicants submit that the Declaration made by Dr. Clarkson shows that the subject matter of the Braven et al. reference and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person and therefore does not preclude the instant claims from patentability under

35 U.S.C. § 103(c).

12) The Declaration by Dr. Clarkson (section 2) shows that Dr. Helen Braven and Dr. Russell Keay contributed to the disclosure of Braven et al. and that the subject matter claimed in Braven et al. is drawn to compositions and methods for probing for nucleic acids, in compliance with 37 C.F.R. § 1.63(a)(4) and § 1.75.

Dr. Flower states in the Declaration (section 2) that he did not contribute to the disclosure of Braven et al., nor claims inventorship of the subject matter as claimed in Braven et al., in compliance with 37 CFR § 1.63(a)(4) & § 1.75. He also states (section 4) that he did not collaborate with Dr. Braven and Dr. Keay until after Braven et al. was filed in the United States (designated in the International Patent Application filed under the PCT) and so was unaware of the subject matter of Braven et al. until that collaboration began. Dr Flower also states that he made contributions to the invention of D. Braven and Dr. Keay that resulted in the disclosure and claims of the instant pending application ('290 application).

Dr. Clarkson states in the Declaration (section 3) that Dr Helen Braven, Dr Russell Keay, and Dr Stephen Flower contributed to the disclosure of the '290 application and are named inventors of the '290 application. He stated that the subject matter claimed in the '290 application is drawn to compositions and methods for detecting protease activity.

Dr. Clarkson further states in the Declaration (section 4) that Dr. Flower collaborated with Dr. Braven and Dr. Keay after the Braven et al. application for patent was filed and therefore could not have contributed to the disclosure of Braven et al. Dr Clarkson also states in the Declaration (section 4) that Dr. Flower contributed his knowledge of chemistry to the invention of Dr. Braven and Dr. Keay that resulted in his name as inventor of the instant pending application ('290 application).

Applicants note that the Examiner stated in a prior Office action (mailed 30<sup>th</sup> September 2008; page 4, third paragraph) that the Braven et al. reference “constitutes prior art only under 35 U.S.C. § 102(e)” and that the “rejection under 35 U.S.C. § 103(a) might be overcome by a showing under 37 C. F.R. § 132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention filed “by another” ”.

Applicants believe that they have made a showing in Declarations under 37 C.F.R. § 1.132 that two of this Application’s inventors were the only inventors of the Braven et al. reference and that therefore the Braven et al. reference is not by another. In addition, Applicants believe that they have made a showing that the subject matter of Braven et al. is not co-extensive with the instant claims.

Applicants respectfully note that the subject matter of Braven et al. was not contributed to by S. Flower and that the claimed subject matter rejected under 35 U.S.C. § 103(a) in this application is different to that disclosed in the Braven et al. reference (see Declaration at sections 2 and 3).

Applicants respectfully submit that the subject matter of Braven et al. is drawn to detection of nucleic acids using electrochemically active marker-labeled nucleotide probes and nuclease enzymes whereas the subject matter of the instant application and claims is drawn to detection of protease enzymes using electrochemically active marker-labeled protease substrates. Braven et al. do not disclose using protease substrates to detect nucleic acids.

13) Applicants therefore respectfully submit that the Declaration under 37 C.F.R. § 1.132 specifically indicates which instant claims S. Flower contributed to (claims 1-15 and 17-18

as originally filed and pending claims 19-23 and 25-31; claims 16 and 24 were cancelled) and effectively explains why S. Flower is not the inventor of the subject matter found in the USPGPUB (US 2005/0221315 A1) which is co-extensive (sic) with the instant claims (he did not collaborate with Dr. Braven and Dr. Keay until after the Braven et al. Application was filed).

14) Applicants respectfully submit that the subject matter disclosed in Braven et al. was derived from two inventors of the subject matter sought to be patented in the instant application and not by “another” and therefore Braven et al. is disqualified as prior art under 35 U.S.C. § 102(e).

15) Applicants respectfully submit that the present Declaration under 37 C.F.R. § 1.132 by Dr. Clarkson and Dr. Flower, together with the prior Declarations under 37 C.F.R. § 1.132 by Dr. Braven (filed 30<sup>th</sup> January 2009 and 14<sup>th</sup> May 2009), show that Dr. Braven and Dr. Keay conceived or invented the subject matter disclosed in the patent or application publication and relied on in the rejection. *In re DeBaun*, 687 F.2d 459, 214 USPQ 933 (CCPA 1982) (see MPEP 715.01(a)).

The Declarations under 37 C.F.R. § 1.132 taken together also show that Dr. Braven and Dr. Keay made the invention upon which the relevant disclosure in the patent, application publication, or other publication is based. *In re Mathews*, 408 F.2d 1393, 161 USPQ 276 (CCPA 1969); *In re Facius*, 408 F.2d 1396, 161 USPQ 294 (CCPA 1969) (see MPEP 715.01(c)).

16) Applicants submit that the Declarations taken together show that the Braven et al. reference is the Applicants' own work. The MPEP states:

"The fact that an application has named a different inventive entity than a patent does not necessarily make that patent prior art." *Applied Materials Inc. v. Gemini Research Corp.*, 835 F.2d 279, 15 USPQ2d 1816 (Fed. Cir. 1988). In fact, even if applicant's work was publicly disclosed prior to his or her application, applicant's own work may not be used against him or her unless there is a time bar under 35 U.S.C. 102(b). *In re DeBaun*, 687 F.2d 459, 214 USPQ 933 (CCPA 1982) (citing *In re Katz*, 687 F.2d 450, 215 USPQ 14 (CCPA 1982)). (See MPEP 2136.05).

Therefore, together with Applicants' submission that the subject matter of Braven et al. does not disclose the subject matter of claim 19, Applicants respectfully submit that Braven et al. does not qualify as a reference under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a).

Applicants believe that the Declarations under 37 C.F.R. § 1.132 are sufficient to overcome the rejections under 35 U.S.C. § 103(a) of claims 19, and dependent claims 20, 21, 22, 25, 26, 27, 28, 29, 30, and 31.

17) With the disqualification of the Braven et al. reference as prior art under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a), Applicants submit that claim 19, and dependent claims 25, 26, 27, and 31, are therefore not unpatentable over Hugli (USPN 6,235,494 B1) in view of Braven et al.

Applicants respectfully request that the rejection of claims 19, 25, 26, 27, and 31 under 35 U.S.C. § 103(a) be withdrawn.

18) With the disqualification of the Braven et al. reference as prior art, Applicants submit that claim 19, and dependent claims 20, 22, 25, 26, and 27, are therefore not unpatentable over Ludin et al. (USPN 6,495,336 B1) in view of Braven et al.

Applicants respectfully request that the rejection of claims 19, 20, 22, 25, 26, and 27 under 35 U.S.C. § 103(a) be withdrawn.

19) With the disqualification of the Braven et al. reference as prior art, Applicants submit that claim 19, and dependent claims 20, 22, 25, 26, 28, 29, and 30, are therefore not unpatentable over Nagy (2000) in view of Braven et al.

Applicants respectfully request that the rejection of claims 19, 20, 22, 25, 26, 28, 29, and 30 under 35 U.S.C. § 103(a) be withdrawn.

20) With the disqualification of the Braven et al. reference as prior art, Applicants submit that claim 19, and dependent claims 20-22, 25, 26, 28, 29, and 30, are therefore not unpatentable over Nagy in view of Braven et al. and further in view of Forrest et al. (USPN 4,978,610).

Applicants respectfully request that the rejection of claims 19-22, 25, 26, 28, 29, and 30 under 35 U.S.C. § 103(a) be withdrawn.

21) With the disqualification of the Braven et al. reference as prior art, Applicants submit that claim 19, and dependent claims 20, 22, 23, 25, 26, 28, 29, and 30, are therefore not unpatentable over Nagy in view of Braven et al. and further in view of Nicholson (USPN 4,456,337).

Applicants respectfully request that the rejection of claims 19, 20, 22, 23, 25, 26, 28, 29, and 30 under 35 U.S.C. § 103(a) be withdrawn.



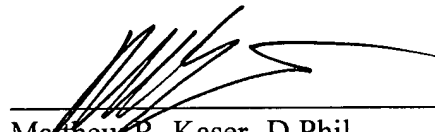
**CONCLUSION**

With these amendments and arguments, Applicants believe that the application is in condition for allowance. If the US Patent Office believes that communication would further the prosecution of this application, then the appropriate US Patent Office personnel are invited to contact the Applicants' below-signed representative at their earliest convenience.

Applicants believe that no fees are required with this Response. However, if the USPTO determines that an additional fee is due, the Commissioner is hereby authorized to charge Bell & Associates' Deposit Account No. **50-3194**.

Respectfully submitted,

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